

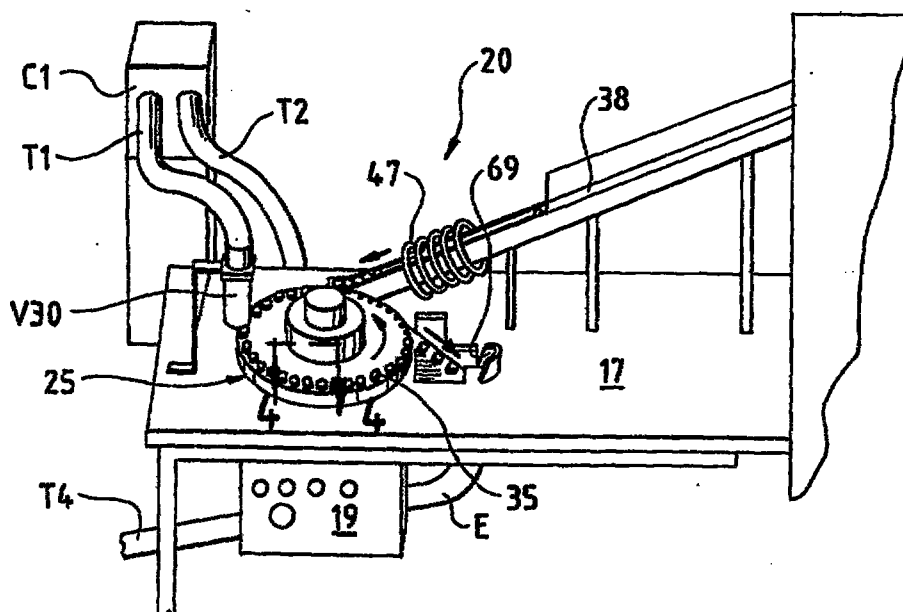
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(21) International Application Number: PCT/US97/18558 (22) International Filing Date: 10 October 1997 (10.10.97) (30) Priority Data: 08/728,597 10 October 1996 (10.10.96) US (71) Applicant (for all designated States except US): NYLOK FASTENER CORPORATION [US/US]; 15260 Hallmark Drive, Macomb, MI 48042-4007 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): DUFFY, Richard [US/US]; 4001 Sandy Creek, Shelby Township, MI 48316 (US). SESSA, Eugene [US/US]; 29559 Riverside Bay Court, Mt. Clemens, MI 48045 (US). OLESKIE, Raymond [US/US]; 47405 Betty, Shelby Township, MI 48317 (US). (74) Agents: SCAVONE, Thomas, G. et al.; Niro, Scavone, Haller & Niro, 181 West Madison, Chicago, IL 60602 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report.	

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(54) Title: POWDER SPRAY APPARATUS AND METHOD FOR COATING THREADED ARTICLES AT OPTIMUM SPRAY CONDITION



(57) Abstract

A powder spray apparatus for coating threaded fasteners (35) is capable of operating at an optimal spray condition. Air supply tubes (42) and powder supply tubes (45) communicate with an air/powder containment block (40). The jet diameter of the air supply tube (42) is sized to provide an optimum spray condition at which a constant supply of powder is provided through spray tube (45) at an optimum powder density and velocity, and hence maximizes the powder build rate on the threads of fasteners. The resulting coated fasteners exhibit a low torque scatter and a highly uniform patch. A method for operating the powder spray apparatus at the optimum spray condition is disclosed.